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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/191,577	11/13/98	FREES	G SA998163/305

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EXAMINER	
CASTRO, A	
ART UNIT	PAPER NUMBER

2754

7

DATE MAILED: 07/06/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/191,577

Applicant(s)

Gregory M. FREES et al

Examiner

Angel Castro

Group Art Unit

2754

☒ Responsive to communication(s) filed on Nov 13, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-51 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-51 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4, 6

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Drawings*

1. Figure 4 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

### *Claim Objections*

2. Claims 8, 23, 38 are objected to because of the following informalities: in claim 8, line 2, --radial-- should be inserted after “predetermined”; in claim 23, line 2, --radial-- should be inserted after “predetermined”; in claim 38, line 3, --radial-- should be inserted after “predetermined”. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5, 11-12, 14-15, 20, 26-27, 29-30, 35, 41-45, 47-48, 50-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear from the claims 42-45 to which step of the method they refer to. As per claims 11-12, 14-15, 26-27,

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29-30, 41-42, 44-45, 47-48, 50-51, it is not clear how a vertical portion of the damping ring can be disposed since it is not stated that the plane formed by the three surface points is a horizontal plane.

5. Claim 5 recites the limitation "the resonant frequencies" in line 4. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 20 recites the limitation "the resonant frequencies" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 35 recites the limitation "the mount flange" in line 2. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 35 recites the limitation "the resonant frequencies" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-2, 4-8, 31, 33-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Mayumi et al (U.S. Pat. 4,806,811).

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As per claims 1-2, 4-8, 31, 33-38, Mayumi et al discloses a mounting interface (figures 1, 2A-2C) for providing a steadfast relationship between a motor and a baseplate (it is inherent that the motor is mounted on a base plate), the mounting interface comprising at least three surface points 3 forming a single plane acting as a common boundary between the motor and the baseplate.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3, 9-15, 32, 39-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mayumi et al (U.S. Pat. 4,806,811).

As per claims 9-15, 39-51, Mayumi et al discloses a mounting interface described supra. Mayumi et al does not disclose a damping ring. Official Notice was given that it was notoriously old and well known in the art to provide a damping ring to dissipate distortion energy. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the mounting interface of Mayumi et al with the damping ring. The motivation would have been: it was well known that the provision of a damping ring between

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the motor and the baseplate would reduce the transmitted vibrations produced during the operation of the motor.

As per claims 3 and 32, Mayumi et al discloses at least three surface points coupled to the motor. Mayumi et al does not show the at least three surface points coupled to the baseplate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the mounting interface of Mayumi et al with the at least three surface points coupled to the baseplate instead of to the motor. The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the mounting interface of Mayumi et al with the at least three surface points coupled to the baseplate instead of to the motor as it would avoid the machine work step on the motor.

13. Claims 16-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elsing et al (U.S. Pat. 5,847,476) in view of Mayumi et al.

As per claims 16-17, 19-23, Elsing et al discloses a data storage system (figures 1, 3-6) comprising a storage medium 8; an actuator 18 including a transducer 12 disposed at a distal end of an actuator arm 16, an actuator motor 20 coupled to the actuator, for moving the transducer relative to the storage medium; a baseplate 4; a spindle motor 48 for rotating the storage medium; a mount flange, coupled to the spindle motor, for coupling the spindle motor to the baseplate; and a mounting interface disposed between the mount flange and the baseplate. Elsing et al does not disclose a mounting interface comprising at least three surface points forming a single plane acting as a common boundary between the mount flange and the

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baseplate. Mayumi et al discloses a motor with a mounting interface described supra. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the data storage system of Elsing et al with the mounting interface as taught by Mayumi et al. The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the data storage system of Elsing et al with the mounting interface as taught by Mayumi et al as doing this would separate a large vibrating source into smaller vibrating sources thus reducing the vibration level of the structure.

As per claims 24-30, neither Elsing et al nor Mayumi et al discloses a damping ring. Official Notice was given that it was notoriously old and well known in the art to provide a damping ring to dissipate distortion energy. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the data storage system of Elsing et al in view of Mayumi et al with the damping ring. The motivation would have been: it was well known that the provision of a damping ring between the motor and the baseplate would reduce the transmitted vibrations produced during the operation of the motor.

As per claim 18, neither Elsing et al nor Mayumi et al discloses the at least three surface points coupled to the baseplate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the data storage system of Elsing et al in view of Mayumi et al with the at least three surface points coupled to the baseplate instead of to the motor. The rationale is as follows: one of ordinary skill in the art would have been

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motivated to provide the data storage system with the at least three surface points coupled to the baseplate instead of to the motor as it would avoid the machine work step on the motor.

*Conclusion*


14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Periyathamby et al discloses a mounting flange for an ultra quiet electric motor; Vollmer et al discloses a device for incorporating a motor; Maughan et al discloses a disk drive constructed to isolate motor vibration; McCarty discloses a mounting arrangement for fan motor.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel Castro whose telephone number is (703) 308-8435. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess, can be reached at (703) 305-4792. The fax phone number for this Group Art Unit is (703) 308-9051 (formal faxes only). For informal faxes, the fax number is (703) 305-7201.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

  
Angel Castro, Ph.D.

July 3, 2000

  
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PRIMARY EXAMINER  
AU2754